Excessive and Unnecessary Diesel Engine Idling

Definition:

Idling is the running of the vehicle engine at any location while the vehicle is stationary. Unnecessary and excessive idling is running the engine when the vehicle is parked for more than 3 - 5 minutes

Courtesy
www.1stoppostershop.com

Excessive and Unnecessary Diesel Engine Idling

What's the Problem with Excessive and Unnecessary Idling?

1.) **Wastes Fuel Dollars**

2.) **Excessive Engine Wear**

3.) **Contributes to Significant Adverse Health and Environmental Impacts**

Excessive and Unnecessary Diesel Engine Idling

1.) Wastes Fuel Dollars

- Heavy duty diesel engines consume approximately one gallon of diesel fuel for each hour at idle. Nationally, an estimated 1.2 billion gallons of fuel are consumed from idling costing $1.8 billion per year in wasted fuel (Average price of $1.50 gallon/diesel fuel)

Courtesy of
www.artzooks.com

Idling vehicles waste fuel and pollutes the air. Use these charts to estimate how much fuel you will save by reducing the amount of times your vehicles idle.

Number of Vehicles	Time Reduced in Min/Day	Fuel Savings A Year (gallons)	Cost of Savings/Year at $1.50 Per Gallon	Cost of Savings after 5 Years
25	5	187.5	$281.25	$1,406.25
25	10	375	$562.50	$2,812.50
25	15	562.5	$843.75	$4,218.75
25	20	750	$1,125	$5,625
25	30	1,125	$1,687.50	$8,437.50
25	45	1,687.5	$2,5321.25	$12,656.25
25	60	2,250	$3,375	$16,875

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www.epa.gov/otaq/schoolbus/idle_fuel_calc.htm

Number of Vehicles	Time Reduced in Min/Day	Fuel Savings A Year (gallons)	Cost of Savings/Year at $1.50 Per Gallon	Cost of Savings after 5 Years
50	5	375	$562.50	$2,812.50
50	10	750	$1,125	$5,625
50	15	1,125	$1,687.50	$8,437.50
50	20	1,500	$2,250	$11,250
50	30	2,250	$3,375	$16,875
50	45	3,375	$5,062.50	$25,312.50
50	60	4,500	$6,750	$33,750

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2.) Excessive Engine Wear

- A truck idling for one hour also suffers engine wear equal to about seven miles of driving. The American Trucking Association states that one hour of idling per day for one year results in the equivalent of 64,000 miles in engine wear when adding up all the contributing factors.

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3.) Contributes to Significant Adverse Health and Environmental Impacts

- Health problems associated with vehicle idling exhaust are premature mortality, bronchitis (chronic and acute), respiratory symptoms (upper and lower), sudden bronchial constriction (asthma attack), pneumonia, influenza, and work loss days.
- Exhaust from idling diesel engines produce gaseous emissions, creating numerous negative consequences for the environment.

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When is idling reasonable and necessary?

Engine idling is reasonable and acceptable under certain circumstances. For example:

- **idling the main engine during sleeping or resting in a sleeper booth;**
- **Idling when the vehicle must remain motionless due to traffic conditions;**
- **Idling to verify safe operating condition according to manufacturer recommendations;**

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- **Idling is mandatory for testing, servicing, repairing or diagnostic purposes;**
- **Idling when positioning or providing power for equipment that is performing work provides a vital task;**
- **Idling when operating defrosters, heaters, air conditioners, or other equipment to prevent a safety or health emergency;**

Myth vs Fact Concerning Diesel Engines

Myth #1: Diesel Engines must be warmed up utilizing long idle periods, especially in cold weather.

Fact #1: Today's truck and engine manufactures often recommend a warm up time of les s than 5 minutes

Myth vs Fact Concerning Diesel Engines

Myth #2: Idling is cost effective because it saves fuel

Fact #2: Idling for more than 10 seconds uses more than restarting the engine.

Courtesy of www.painetworks.com

Myth vs Fact Concerning Diesel Engines

Myth #3: It's better for the engine to run at low, idling speeds than to run at regular speeds

Fact #3: Running the engine for extended periods of time at low speed (idling) causes more wear on internal parts than running the engine at normal driving speeds.

Myth vs Fact Concerning Diesel Engines

Myth #4:The engine must be kept running in order to operate equipment in the cabin (i.e., flashing lights, or radio). This equipment can't be run off the internal circuitry of the vehicle because the battery will run down

Fact #4: Such equipment can generally be operated for up to an hour without the engine running.

Alternatives to Idling

- Take the VIP Pledge
- Join EPA's The SmartWay Transport Partnership
- Install Idling Reducing Equipment

A. Electronically Controlled Idle Limiters
   1.) Idle Shutdown Timers
   2.) Automatic Stop-Start Systems

B. Fuel-Fired heaters

C. Auxiliary Power Systems
   1.) Auxiliary Power Units (APUs)
   2.) Fuel Cells
   3.) Battery Packs